As stated above, the content provider software notes the upload time specified by the scheduling intelligence module. The content provider software may additionally monitor the time of day, waiting for the time of day to be equal to the upload time. When it is, the content provider software may initiate upload of the content by sending a message to temporary storage module 802 of the DDS using the data link between the content provider and the DDS. The message includes the content, the unique identifier, and a request that the content be stored. In some embodiments, the message may further include a user id and/or password corresponding to the content provider. If there is not a VPN connection between the content provider and the DDS in a manner similar to that described above with reference to the upload of metadata the content provider software may first need to send a message to gatekeeper module 803 asking it to configure the firewall 801 to allow entry of the content. In cases where there is a VPN connection, this step may be unnecessary.

Upon receipt of the message, the temporary storage module 802 may store the content in its associated store. In embodiments where the message further contains a user id and/or password, the temporary storage module may first perform authentication by consulting a database module to verify the user ID and/or password.

A short time after the specified upload time for the content item or items, the scheduling intelligence module 1217 may send a message to the temporary storage module 802 including the unique identifier of the distribution in question, and asking if the corresponding upload has been received. If the temporary storage object responds with an answer of no (e.g., a message indicating Boolean false), the scheduling intelligence module may free for use by other content providers the schedule blocks that had been designated for the distribution.

At some later time prior to the intended transmission date for the content, the scheduling intelligence module 1217 may send a message to the temporary storage module 802

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requesting that it pass the content to the preprocessor module. The message may further specify where the data should be stored after preprocessing. The specified store is the global store 813 for content to be distributed throughout the network. For content to be distributed only to a single network area the specified store is the local store corresponding to that area. As noted above, the scheduling intelligence module maintains in its associated store received metadata. The scheduling intelligence module makes the determination of which store should be specified by assessing its own associated store to consult the metadata corresponding to the distribution. The scheduling intelligence module chooses the time at which to send the message to the local store based on a number of factors such as the amount of available storage space associated with the temporary storage module, amount of data from other distributions that needs to be uploaded within a certain period of time, and the time remaining to transmission of the distribution in relation to which the message would be sent.

Upon receipt of the message from the scheduling intelligence module, the temporary storage module could comply with that message's request by sending a message to the preprocessor module 809. The message to the preprocessor module could include the content to be preprocessed, the corresponding unique identifier, and an indication of the target global or local store. The preprocessor module could perform tasks such as compression, format conversion, and addition of digital rights management (DRM) data. For example, the DDS may accept films in various formats such as Quicktime and Windows Media Player, but wish for them ultimately to be converted to Realmedia. In such a case, the preprocessor module would be programmed to determine the format of incoming video content and convert it to Realmedia format if necessary. Compression may, for example, include compressing incoming text or data files using a technique such as GNU Zip through use of the GNU gzip command or algorithm. In some embodiments, the preprocessor module may have an associated temporary storage location

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for use as a workspace while performing the above operations. Once it has completed its work, the preprocessor module may send a message to the global storage module or a local storage module as appropriate. The message can include the preprocessed content, the corresponding unique identifier, and a request that the content be stored with reference to its unique identifier.

At the determined time for transmission over the wireless link, the appropriate local or global storage module could receive from the scheduling intelligence module a message specifying a unique identifier, the rate at which the content should be transmitted over the wireless link, and a command specifying that the storage module should retrieve from its store the content corresponding to the unique identifier and request casting of that content for transmission over the wireless link at the stated rate. In some embodiments, the message may further include the metadata relating to the unique identifier and could further specify that the storage module request casting of the metadata along with the content. As alluded to above, the scheduling intelligence module can retrieve this metadata from its associated store. It is noted that in cases where the same content is to be transmitted over the wireless link more than once, the content may remain in the global or local store and the scheduling intelligence module may send the above-described message to the storage module at each point in time when the content is to be transmitted.

In response to the message, the storage module sends a message to its corresponding caster including content to be cast, the rate at which transmission over the wireless link is to occur, and requesting that the content be cast. By "corresponding caster" is meant, for example, that the global storage module 813 would send the message to the global caster 821 while the local storage module for area 1 (811) would send the message to the local caster for area 1 (819). In some embodiments the message might further include the